

What is claimed is;

1           1. A solution preparing apparatus comprising:  
2           a chamber, an inside of which is divided into a first compartment  
3 and a second compartment by a movable partition;  
4           a dissolving solution supply line for supplying a dissolving  
5 solution to the first compartment of the chamber;  
6           a solution tank connected with the first compartment through  
7 a first solution preparing line and connected with the second  
8 compartment through a second solution preparing line;  
9           a transporting pump provided in the second solution preparing  
10 line  
11           a concentration meter;  
12           a solution transporting line for transporting solution filled  
13 in the second compartment to the point of use; and  
14           a circulating line connecting the first solution preparing  
15 line between the first compartment and the solution tank to the second  
16 solution preparing line between the transporting pump and the second  
17 compartment;  
18           said solution tank being provided with an upstream tank portion  
19 and a downstream tank portion in liquid communication at bottoms  
20 thereof, and at least one filter provided in a downstream portion

21 of the downstream tank portion.

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1 2. The solution preparing apparatus claimed in claim 1,  
2 wherein the solution tank is a U-shaped tank constructed of a  
3 relatively small-diameter upstream tank portion and a relatively  
4 large-diameter downstream tank portion connected at bottoms thereof  
5 by a bottom portion of the U-shaped tank having small-diameter so  
6 as to communicate with each other.

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1 3. The solution preparing apparatus claimed in claim 1,  
2 wherein the solution tank is a tubular tank divided into an upstream  
3 tank portion and a downstream tank portion by a vertically arranged  
4 diaphragm.

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1 4. The solution preparing apparatus claimed in claim 1, wherein  
2 a powder supply means is provided above the upstream tank portion  
3 of the solution tank.

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1 5. The solution preparing apparatus claimed in claim 1, wherein  
2 a level detecting sensor is provided in the upstream tank portion  
3 of the solution tank.

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1           6. The solution preparing apparatus claimed in claim 1, wherein  
2 a powder level sensor is provided in the downstream tank portion  
3 of the solution tank.

1           7. The solution preparing apparatus claimed in claim 1, wherein  
2 a heater is provided in the second solution preparing line downstream  
3 of the solution tank.